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CONTRIBUTION TO THE FLORA OF LIMESTONE CAVES IN BARATANG ISLAND, ANDAMANS

P.G. DIWAKAR[1], R. SUMATHI, J.JAYANTHI AND K. KARTHIGEYAN

[1]*Botanical Survey of India, Western Circle, Pune 411 001*
Botanical Survey of India, Andaman & Nicobar Circle, Port Blair 744 102

ABSTRACT

Baratang Island is one of the geologically interesting area in Andamans with many mud volcanoes and limestone caves. A first hand report of the plants occurring in and around the limestone caves is presented. A total of 152 taxa are listed.

INTRODUCTION

Baratang Island, with an area of about 298 sq km lies towards south of Middle Andaman at 92°44' E longitude and 12°5' N latitude. The maximum width of the island is around 25 km, with an irregular coastline and frequent tidal creeks penetrating far inland, harbouring dense patches of mangroves. The limestone landscape in Baratang is very distinctive. The soil on the top is very shallow and at many places often exposed with large grey limestones. The main cave land surface is less elevated with few hillocks.

Geologically the soil of the island is non-calcareous, grey, sandstone and embedded shales, pale grey limestones and sandy loam type with occasional gravel-strewn soil on the low hills. The climate is warm tropical humid throughout the year, with temperature varying from 21° to 30° C. South West and North East monsoons provide almost 3000 mm rainfall from April to December. The climate is usually dry and hot during January to April.

Vegetation

The general vegetation of the Island is of moist deciduous type on the top and surrounded by patches of evergreen forests. The deciduous vegetation occurs on dry mounds with little soil and much exposed rocks. The trees usually are rather stunted. The canopy is open and the vegetation cover is more or less thin. The most common species occurring in the area are *Lagerstroemia hypoleuca*, *Dillenia andamanica*, *Rinorea benghalensis*, etc. *Euphorbia barnhartii* Croiz. which was previously considered to be very rare (Chakrabarty & Balakrishnan, 1992) has been located in wild during our present study. It is found growing on the limestone substratum in moderately shaded deciduous forests.

The evergreen vegetation is found on the lower elevations around the limestone caves. The soil is rich, wet with little rocks exposed. The common species occurring here are *Dipterocarpus griffithii*, *Knema andamanica*, *Pometia pinnata*, etc. A variety of shrubs like *Mallotus peltatus*, *Psychotria andamanica* and climbers like *Entada rheedii*, *Gnetum scandens* are also common. The island has served as one of the wealthy spot for plant exploration for centuries. Many earlier colletions by British are deposited at CAL. The studies include that of Parkinson (1923), Bhargava (1958), Thothathri (1962 & 1975) and Basu & Premnath (1983). The present study is mainly concentrated on the flora in and around the limestone caves of Baratang Island. The plants were identified using authentic floras and herbarium specimens deposited at PBL. Total 152 taxa of plants belonging to 142 genera of 63 families are enumerated in the present survey, of these, 19 are endemic to Andaman & Nicobar Islands.

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List of plants around the Lime Stone Caves of the Baratang Island

Botanical name	Family
Daedalacanthus suffruticosus T. Anderson	Acanthaceae
Nelsonia campestris R. Br.	Acanthaceae
Pseuderanthemum album (Nees) Merr.	Acanthaceae
Strobilanthes glandulosus Kurz	Acanthaceae
Buchanania splendens Miq.	Anacardiaceae
Semecarpus kurzii Engl.	Anacardiaceae
Ancistrocladus tectorius (Lour.) Merr.	Ancistrocladaceae
Anaxogorea luzonensis Gray	Annonaceae
Desmos dasymashchalus (Blume) Safford	Annonaceae
Goniothalamus macranthus (Kurz) Boerl.	Annonaceae
Miliusa andamanica (King) Finet & Gagnep.	Annonaceae
Orophea hexandra Blume	Annonaceae
Polyalthia parkinsonii Hutch.	Annonaceae
Tabernaemontana crispa Roxb.	Apocynaceae
Alocasia decipiens Schott.	Araceae
Amorphophallus carnosus Engl.	Araceae
Pothos roxburghii de Vriese	Araceae
Epipremnun pinnatum (L.) Engl.	Araceae
Areca triandra Roxb.	Arecaceae
Calamus andamanicus Kurz	Arecaceae
Caryota mitis Lour.	Arecaceae
Korthalsia laciniosa Mart.	Arecaceae
Licuala peltata Roxb.	Arecaceae
Thottea tomentosa (Blume) Ding Hou	Aristolochiaceae
Hoya parasitica Wall.	Apocynaceae
Eupatorium odoratum L.	Asteraceae
Eclipta prostrata (L.) L.	Asteraceae
Vernonia cinerea (L.) Less.	Asteraceae
Begonia andamanensis Parish	Begoniaceae
Oroxylum indicum (L.) Kurz	Bigoniaceae
Pajanelia longifolia (Willd.) K. Schum.	Bigoniaceae
Bombax insigne Wall.	Bombacaceae
Canarium manii King	Burseraceae
Calophyllum soulattri Burm.f.	Clusiaceae
Garcinia cowa Roxb. ex DC.	Clusiaceae
Garcinia xanthochymus Hook.f. & T. Anderson	Clusiaceae
Terminalia bialata Steud.	Combretaceae
Terminalia procera Roxb.	Combretaceae
Pollia secundiflora (Blume) Backer	Commelinaceae
Cnestis palala (Lour.) Merr.	Connaraceae
Erycibe peguensis (C.B. Clarke) Prain	Convolvulaceae
Trichosanthes tricuspidata Lour.	Cucurbitaceae
Kyllinga brevifolia Rottb.	Cyperaceae
Dichapetalum gelonioides (Roxb.) Engl. ssp. *andamanicum* (King) Leenh.	Dichapetalaceae
Dillenia andamanica Parkinson	Dilleniaceae
Dioscorea pentaphylla L.	Dioscoreaceae
Dipterocarpus grandiflorus (Blanco) Blanco	Dipterocarpaceae
Dipterocarpus kerrii King	Dipterocarpaceae
Dracaena elliptica Thunb.	Dracaenaceae
Dracaena pachyphylla Kurz	Dracaenaceae
Diospyros lanceifolia Roxb.	Ebenacae
Elaeagnus conferta Roxb.	Elaeagnaceae
Actephila excelsa (Dalzell) Muell. Arg.	Euphorbiaceae
Antidesma bunius (L.) Spreng.	Euphorbiaceae
Aporusa octandra (Buch.-Ham. ex D. Don) A.R. Vickery	Euphorbiaceae
Blachia andamanica (Kurz) Hook.f.	Euphorbiaceae
Breynia vitis-idaea (Brum.f.) C.E.C. Fisch.	Euphorbiaceae
Bridelia ovata Decne.	Euphorbiaceae
Cleidion nitidum (Muell. Arg.) Thwaites ex Kurz	Euphorbiaceae
Cleistanthus myrianthus (Hassk.) Kurz	Euphorbiaceae
Croton sublyratus Kurz	Euphorbiaceae
Drypetes longifolia (Blume) Pax. & Hoffm.	Euphorbiaceae
Euphorbia barnhartii Croiz.	Euphorbiaceae
Macaranga indica Wight	Euphorbiaceae
Mallotus peltatus (Geisel.) Muell. Arg.	Euphorbiaceae
Trigonostemon viridissimus (Kurz) Airy Shaw	Euphorbiaceae
Derris scandens (Roxb.) Benth.	Leguminosae
Derris andamanica Prain	Leguminosae

Botanical name	Family
Abrus melanospermus Hassk.	Leguminosae
Adenanthera pavonina L.	Leguminosae
Entada rheedii Spreng.	Leguminosae
Epithema carnosum Benth.	Gesneriaceae
Cratoxylum formosum (Jack) Dyer	Hypericaceae
Curculigo orchioides Gaertn.	Hypoxidaceae
Hyptis capitata Jacq.	Lamiaceae
Leea indica (Burm.f.) Merr.	Leeaceae
Fagraea volubilis Wall.	Gentianaceae
Strychnos wallichiana Steud. ex DC.	Loganiaceae
Lagerstroemia hypoleuca Kurz	Lythraceae
Urena lobata L.	Malvaceae
Sida acuta Burm.f.	Malvaceae
Donax cannaeformis (G. Forst.) K. Schum.	Marantaceae
Stachyphrynium cadellianum (King ex Baker) N.P. Balakr.	Marantaceae
Aglaia ganggo Miq.	Meliaceae
Stephania japonica (Thunb.) Miers.	Menispermaceae
Artocarpus chama Buch.-Ham.	Moraceae
Ficus benjamina L.	Moraceae
Ficus hispida L.f.	Moraceae
Streblus taxoides (Roth) Kurz	Moraceae
Knema andamanica (Warb.) de Wilde	Myristicaceae
Ardisia oxyphylla Wall. ex DC.	Myirstinaceae
Maesa andamanica Kurz	Myirstinaceae
Syzygium claviflorum (Roxb.) Wall. ex Cowan & Cowan	Myrtaceae
Syzygium samarangense (Blume) Merr. & Perry	Myrtaceae
Pisonia umbellifera (Forst.) Seem.	Nyctaginaceae
Champereia mainillana (Blume) Merr.	Opiliaceae
Bulbophyllum lepidum (L.), J.E.Sm.	Orchidaceae
Corymborkis veratrifolia (Reinw.) Blume	Orchidaceae
Cymbidium aloifolium (L.) Sw.	Orchidaceae
Dendrobium anceps Sw.	Orchidaceae
Eria andamanica Hook.f.	Orchidaceae
Eria bractescens Lindl.	Orchidaceae
Eulophia spectabilis (Dennst.) Suresh	Orchidaceae
Geodorum densiflorum (Lam.) Schltr.	Orchidaceae
Malaxis andamanica (King & Pantl.) N.P. Balakr. & Vasudeva Rao	Orchidaceae
Malaxis latifolia Sm.	Orchidaceae
Nervilia aragoana Gaudich.	Orchidaceae
Peristylus parishii Reichb.f.	Orchidaceae
Pholidota imbricata (Roxb.) Lindl.	Orchidaceae
Pomatocalpa andamanicum (Hook.f.) J.J.Sm.	Orchidaceae
Pteroceras muriculatum (Reichb.f.) P.F.Hunt	Orchidaceae
Rhynchostylis retusa (L.) Blume	Orchidaceae
Vanilla albida Blume	Orchidaceae
Pandanus andamanensis Kurz	Pandanaceae
Adenia heterophylla (Blume) Koord. ssp. *andamanica* de Wilde.	Passifloraceae
Piper betle L.	Piperaceae
Peperomia pellucida (L.) Humb., Bonpl. & Kunth	Piperaceae
Chrysopogon aciculatus (Retz.) Trin.	Poaceae
Cyrtococcum accrescens (Trin.) Stapf	Poaceae
Dichanthium annulatum (Forssk.) Stapf	Poaceae
Dinochloa scandens (Blume ex Nees) Kuntze	Poaceae
Isachne pulchella Roth ex Roem. & Schult.	Poaceae
Oplismenus compositus (L.) P. Beauv.	Poaceae
Argostemma neurocalyx Miq.	Rubiaceae
Geophila reniformis D.Don	Rubiaceae
Hedyotis biflora (L.) Lam.	Rubiaceae
Ixora grandifolia Zoll. & Mor.	Rubiaceae
Lasianthus andamanicus Hook.f.	Rubiaceae
Mussaenda frondosa L.	Rubiaceae
Ophiorrhiza mungos L.	Rubiaceae
Psychotria platyneura Kurz	Rubiaceae
Psychotria sarmentosa Blume	Rubiaceae
Rothmannia pulcherrima (Kurz) Triveng.	Rubiaceae
Saprosma ternatum Hook.f.	Rubiaceae
Atalantia monophylla DC.	Rutaceae
Ganophyllum falcatum Blume	Sapindaceae
Lepisanthes rubiginosa (Roxb.) Leenth.	Sapindaceae

Botanical name	Family
Pometia pinnata J.R. & G. Forst.	Sapindaceae
Smilax odoratissima Blume	Smilacaceae
Pterospermum acerifolium Willd.	Sterculiaceae
Sterculia macrophylla Vent.	Sterculiaceae
Thunbergia laurifolia Lindl.	Acanthaceae
Grewia calophylla Kurz	Tiliaceae
Elatostemma integrifolium (D.Don) Wedd.	Urticaceae
Pipturus argenteus (Forst.f.) Wedd.	Urticaceae
Rinorea bengalensis(Wall.) Kuntze	Violaceae
Ampelocissus barbata (Wall.) Planch.	Vitaceae
Cayratia japonica (Thunb.) Gagnep.	Vitaceae
Costus speciosus (Koen.) J.E. Sm.	Zingiberaceae
Globba pauciflora King ex Baker	Zingiberaceae
Boesenbergia siphonantha (King ex Bake(Sabu & al.)	Zingiberaceae
Zingiber zerumbet (L.) Rose ex J.E. Sm.	Zingiberaceae

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बरतंग द्वीप, अंडमान में चूनापत्थर गुफाओं के वनस्पतिजात पर योगदान

पी.जी. दिवाकर, आर. सुमति, जे. जयंती एवं के. कार्तिगेयन

सार संक्षेप

अंडमान में बरतंग द्वीप भूगर्भ विज्ञान की दृष्टि से महत्त्वपूर्ण है। यहाँ पंक ज्वालामुखी एवं चूनापत्थर गुफाएँ हैं। यहाँ पौधों की व्याप्ति की साक्षात रिपोर्ट में कुल 152 टैक्सा की सूची है।